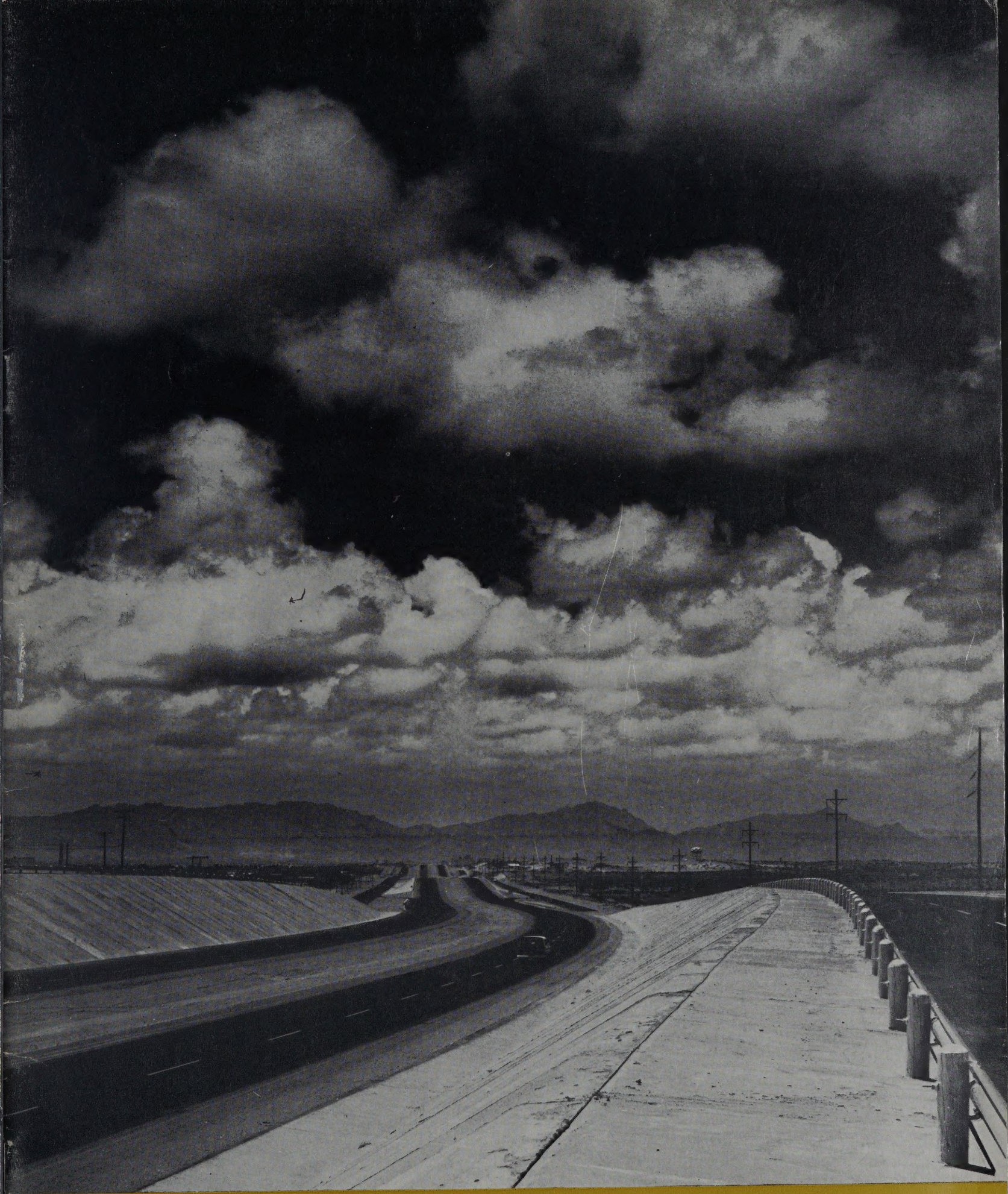
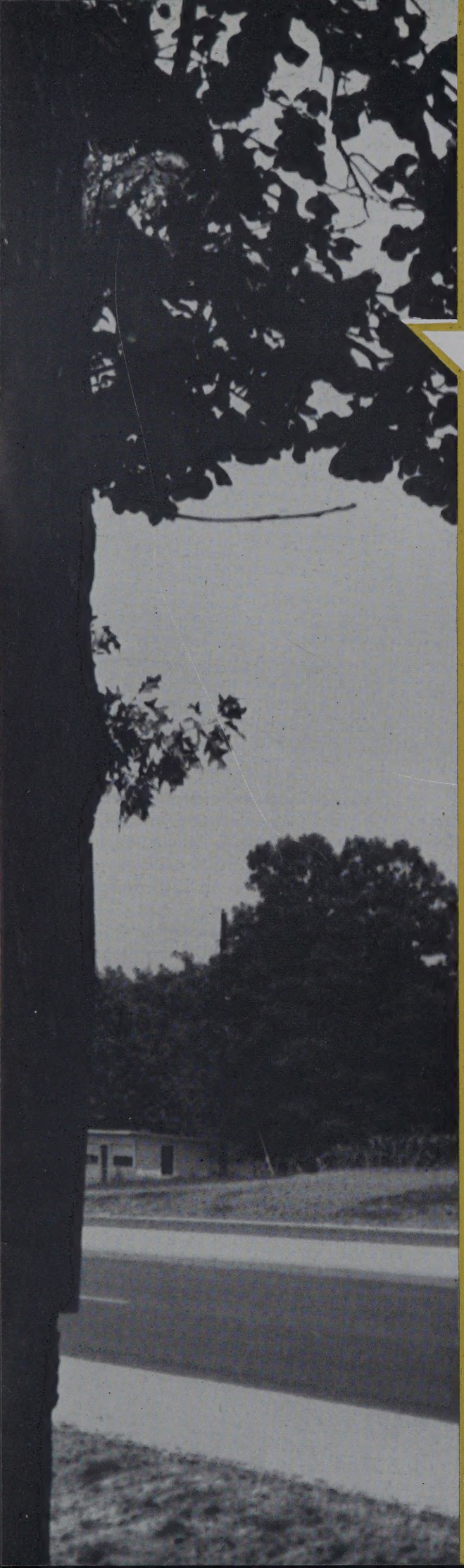


Texas Highways

November, 1961



Texas Highways

Volume 8 • Number 11

November, 1961

Contents

The 49th	2
Rattlesnake Road	8
Sink 'em to Save 'em	10
In the Public Eye	14
Improved Drilling Equipment	16
Construction of the Hunt Creek Bridge	18
Safety Record	22
Over the Highways	23

Round-up Time in Texas

The 49th

They're in the army now. Joseph H. Fitzgerald, Field Survey Worker II (left), and W. W. Jackson, Right of Way Appraiser I, of District 1 get things in order before the rest of the 49th Armored Division of Texas report for active duty.

From the Rio Grande to the Red River, the Texas Highway Department gave up 186 of its men when the 49th Armored Division of the Texas National Guard was mobilized on October 15. Not included in this group are the men from the 1104th Transportation Company in Carrizo Springs, the 980th Engineering Battalion, and some individual reservists called into the Air Force and Texas Air National Guard.

Losses from the districts ranged from one in District 5 to 47 in District 19, and included men whose jobs varied from laborers to engineer. Replacing these men and keeping highway work on schedule is the problem facing district engineers in the months ahead.

District 1 at Paris sustained next to the highest loss in personnel, a total of 41, with 24 of those from Paris alone. Ten of the men from Senior Resident Engineer Richard Babb's office are gone; four men from the Right of Way section were taken, including one engineer and one appraiser; two draftsmen from the Designing Engineer's office will have to be replaced; the Traffic Engineer lost one man and the District Lab two; Accounting lost one man; and four common and semi-skilled laborers are gone.

District Engineer L. D. Cabaniss expressed what is probably the feeling of all district engineers when he said, "We will get the job done no matter how many men we lose. We are hard hit and it will slow us down a little, but fortunately winter is coming on and that's the time our field and construction work will be slowed down, too." James W. Cravens, District Administrative Engineer, said, "If it had to happen, it couldn't have happened at a better time of the year."

But Cravens emphasized that there was no substitute for the experience a man gains working for the Department in explaining replacements for the men that have gone. "No matter how well qualified a man is in schooling or experience," Cravens said, "it takes time to train him in highway work." That seemed to be the real problem faced by the district office in Paris.

Cabaniss said the Right of Way section will be slowed down the most by the call to active duty. That section lost four men, which is 21 per cent of its staff. Two men who will be hardest to replace are Edward Bankhead, Office Engineer, and Wade Jackson, an appraiser. Bankhead has been with the Department nineteen years and is thoroughly trained in utility right of way appraisal. It took three years of work and study for Jackson to qualify as an appraiser. Replacing these men who have experience and training in Highway Department work will be the hardest task in the months ahead, Cravens said.

Harry Short, Supervising Right of Way Engineer, also lost two other men that cannot be replaced without

long months of training. They are Jim Kirby, Engineering Clerk II, who who reviews appraisals, and John Kocurek, Draftsman I, who checks right of way maps and deeds.

Short said he would have to shift men around to keep going on work that was in progress when the four men had to report. "Our review appraisers finished up projects through the recommended-value stage and on the whole the work is fairly well in order."

Loss of two men from the review appraiser section means "we will have to use more fee appraisers," Short said. A fee appraiser is the title given to a real estate appraiser to distinguish him from the Department staff appraisers, Short pointed out. And these men are hired on a fee basis to appraise land for the right of way section. Before the call-up Short had three qualified appraisers, but Jackson was the only qualified appraiser lost.

"This call-up will probably slow down work in the Right of Way section more than any other place," Cabaniss emphasized. "Some of the right of way work will have to be handled by the resident engineers, at least more so than it is now."

Cabaniss said if the ready reserves were called, it would mean more trouble for the district because nearly all the resident engineers would be affected. "But when something like this happens, what can you do?" he asked. "We will do the best we can."

Billy J. Kennedy, Accountant III in the Paris District office, doesn't look too concerned about being called back to active duty. But the accounting office will miss him. Billy was assistant to the district auditor.

Cabaniss said the only way the losses can be handled is by promoting personnel within each department and by hiring the personnel to start training for the less skilled jobs. He said Resident Engineer Richard Babb had ten men that went with the 49th, including a party chief and a graduate engineer who had been with the Department fifteen months.

Heading the list of hardest men to replace at the resident engineer's office are Alson Porterfield, Engineering Assistant II, a graduate engineer from from Texas A&M, and Joseph Fitzgerald, Field Survey Worker II, or party chief. Porterfield had worked for the Highway Department before he graduated from college and accumulated 30 months experience before he started on a full-time basis.

Last June, Porterfield began officers' training school at Camp Mabry in Austin. The school met one week end a month and was supposed to last one year, but when the 49th was called to active duty Porterfield and the other candidates began to attend classes every day from September 28 through October 10, with no time off. This was to allow the new officers to report back for duty before the Division left for Fort Polk, Louisiana.

Fitzgerald was called to active duty

Lonnie W. Kennedy, Engineering Aide II (left), Everett G. Hinson, Draftsman I, and Senior Designing Engineer E. F. Crow discuss highway work to be done before Kennedy and Hinson have to report for duty with the 49th Division of the Texas National Guard.

The Right of Way section of the Paris district office lost four men when the 49th Division was called to active duty October 15. Supervising Right of Way Engineer H. H. Short (left), John R. Kocurek, Draftsman I (seated), Jimmy F. Kirby, Engineering Clerk II, and Edward G. Bankhead, Engineer II, get together to clear up right of way problems before three of them have to report for active duty. Short was not in the call up.

three weeks before the other men had to report. He is the highest ranking noncommissioned officer in the First Howitzer Battalion, 132nd Artillery, and his job is coordination and supervision of the first sergeants in five batteries. Harold Ford, Inspector I in the resident engineer's office, went on active duty Monday, October 2, thus leaving Babb short three men two weeks before the Division was activated.

Babb said he would have to hire three or four men immediately to start training and would replace the other men he lost in the coming months. Babb said with three of four new men he could keep up with the

Senior Traffic Engineer T. M. Hagood Jr. (left) looks over plans with H. H. Henry, Engineering Assistant I, before Henry leaves for his new duties as sergeant first class in the 132nd Artillery of the 49th Division.

District Engineer L. D. Cabaniss and James W. Cravens, District Administrative Engineer of Paris, discuss the problems facing them since 41 men from District I were called back to active duty.

present field and construction work. He said the toughest part about losing so many men was having to pull an inspector such as Billy Barber, Inspector II, who was inspector on Loop 286 being built around Paris, from an almost completed job. Putting an inspector on the job who was unfamiliar with the work created problems that could have been avoided by keeping one man on the job until completion, he said. Up to October 1, Babb's biggest loss of time stemmed from trying to get all the men's records in order and interviewing people to replace some of those that were leaving.

In the accounting office Asistant Fiscal Officer George Henderson is without his "second in command," Billy Kennedy, Accountant III. Kennedy is a first lieutenant with Battery A of the First Howitzer Battalion. From the Traffic Engineer's office, H. H. Henry, Engineering Assistant I, has traded his slide rule for his sergeant first class stripes.

Over in District Designing Engineer E. F. Crow's office, two draftsmen, Lonnie Kennedy, Engineering Aide III, and Everett Hinson, Draftsman I, will be missing for a time. Lonnie said he was on the Highway Department ferry between Port Bolivar and Galveston when he heard the news of the call-up on his car radio. He said he was ready to go.

"The district lab is losing next to the top man and one aide who will be hard to replace because training for that kind of work takes so long," Cabaniss said. Horace B. Redus, Inspector III, has been with the Department fifteen years and served all that time in the lab. He is a staff sergeant in the First Howitzer. Also missing from the lab now is Jerry Dudley, Engineering Aide I, who has worked eight years in the Paris lab. He is a corporal with the First Howitzer.

Semi-Skilled Laborers Alvis Bates, James Carico, and Charles Goodman, and Common Laborer Marvin Horton Jr., were also called from the Paris office. Bates is a sergeant and Carico is a corporal; Goodman is a specialist 5 and Horton a specialist 4.

Men leaving the Department to go on active duty know that their jobs will be waiting for them when they return. A minute order passed by the State Highway Commission in August also provided that a man leaving the Department and enlisting in the service when he was about to be drafted is also assured of his job.

District Engineers feel their losses keenly and they know it will mean more work for those staying behind, but they are willing to take on the added responsibilities because the safety of the country is at stake. They are determined that highway work will continue at the same pace and quality until those men return.

HONOR

Bridge Division

H. T. Woodmansee	Engineering Aide III	136th Trans. Co.	Captain

Construction Division

A. C. Hampel	Accountant II	49th Armored Div.	Second Lieutenant

Highway Design

L. D. Presler	Draftsman II	136th Trans. Co.	Staff Sergeant

Motor Vehicle Division

L. L. Riffe, Jr.	Clerk III	49th Armored Div.	Specialist 5

Operations Division

E. F. Allen Jr.	Air Cond. Mechanic III	969th Eng. Bn.	Warrant Officer

Planning Survey

W. G. Staton	Statistical Clerk II	49th Armored Div.	Specialist 4

Right of Way Division

J. K. Young	Right of Way Attorney II	49th Armored Div.	Major

District 1

J. W. Allen	Common Laborer	49th Armored Div.	Private First Class
G. D. Anders	Materials Analyst I	49th Armored Div.	Sergeant
E. G. Bankhead	Engineer II	49th Armored Div.	Master Sergeant
B. H. Barber	Inspector II	49th Armored Div.	Sergeant
A. W. Bates	Semi-Skilled Laborer	49th Armored Div.	Sergeant
W. R. Blevins	Semi-Skilled Laborer	49th Armored Div.	Staff Sergeant
J. R. Carico	Semi-Skilled Laborer	49th Armored Div.	Corporal
R. L. Carpenter	Inspector I	49th Armored Div.	Sergeant
J. L. Cunningham	Inspector I	49th Armored Div.	Specialist 4
J. C. Dudley	Engineering Aide I	49th Armored Div.	Corporal
N. R. Edwards	Engineering Aide I	49th Armored Div.	Specialist 5
J. H. Fitzgerald Jr.	Field Survey Worker II	49th Armored Div.	Master Sergeant
H. D. Ford	Inspector I	49th Armored Div.	Specialist 5
C. D. Gillean	Common Laborer	49th Armored Div.	Specialist 4
C. H. Golden	Field Survey Worker I	49th Armored Div.	Specialist 5
C. W. Goodman	Semi-Skilled Laborer	49th Armored Div.	Specialist 5
G. G. Gordon	Inspector I	49th Armored Div.	Specialist 4
B. D. Hays	Engineering Aide I	49th Armored Div.	Private
H. H. Henry	Engineering Assistant I	49th Armored Div.	Sergeant First Class
E. G. Hinson	Draftsman I	49th Armored Div.	Specialist 5
M. C. Horton Jr.	Common Laborer	49th Armored Div.	Specialist 4
W. W. Jackson	Right of Way Appraiser I	49th Armored Div.	Sergeant First Class
K. R. Jones	Engineering Assistant II	49th Armored Div.	First Lieutenant
B. J. Kennedy	Accountant III	49th Armored Div.	First Lieutenant
L. W. Kennedy	Engineering Aide II	49th Armored Div.	Specialist 4
J. F. Kirby	Engineering Clerk II	49th Armored Div.	Specialist 5
K. R. Kluttz	Inspector I	49th Armored Div.	Staff Sergeant
J. R. Kocurek	Draftsman I	49th Armored Div.	Specialist 4
G. E. Latimer	Engineering Aide I	49th Armored Div.	Specialist 4
J. L. Lindsey	Semi-Skilled Laborer	49th Armored Div.	Master Sergeant
G. W. Locke	Engineering Aide II	49th Armored Div.	Sergeant
R. R. Martin	Engineering Aide I	49th Armored Div.	Specialist 4
J. R. Meredith	Inspector I	49th Armored Div.	Specialist 4
J. N. Norris	Engineering Aide II	49th Armored Div.	Sergeant
A. G. Porterfield	Engineering Assistant II	49th Armored Div.	Officers' Candidate
J. W. Reddell	Engineering Aide I	49th Armored Div.	Specialist 4
H. B. Redus	Inspector III	49th Armored Div.	Sergeant
B. N. Sharber	Engineering Aide I	49th Armored Div.	Specialist 4
W. A. Sherrer	Inspector I	49th Armored Div.	Specialist 5
J. D. Taylor	Inspector I	49th Armored Div.	Specialist 4
J. G. Thomas	Common Laborer	49th Armored Div.	Specialist 4

District 2

W. D. Applegate	Common Laborer	49th Armored Div.	
M. K. Barham	Engineering Aide III	980th Eng. Bn.	
T. J. Brown	Inspector II	49th Armored Div.	
E. L. Chenault	Field Survey Worker II	49th Armored Div.	
L. W. Cockrum	Accounting Clerk II	49th Armored Div.	Private
H. L. Davis Jr.	Semi-Skilled Laborer	49th Armored Div.	
G. R. Dixon	Inspector II	49th Armored Div.	
J. W. Dotson	Engineer II	49th Armored Div.	
L. D. Flusche	Engineering Aide II	49th Armored Div.	
R. E. Glover	Engineering Aide II	Tex. Air Nat. Guard	Airman Basic
L. J. Goen	Engineering Aide I	49th Armored Div.	
J. T. Gordon	Engineering Aide III	49th Armored Div.	
H. E. Green	Inspector II	49th Armored Div.	First Lieutenant
L. C. Hall	Field Survey Worker I	49th Armored Div.	
R. D. Hynson	Right of Way Util. Agt.II	49th Armored Div.	
L. L. Jackson	Inspector I	49th Armored Div.	
J. M. Lee	Engineering Aide III	49th Armored Div.	
V. L. Lusk	Field Survey Worker III	49th Armored Div.	
B. R. McClure	Materials Analyst II	49th Armored Div.	
J. L. McClure	Inspector I	49th Armored Div.	
S. B. McClure	Skilled Laborer	49th Armored Div.	
J. T. McNeill	Stock Clerk II	49th Armored Div.	
T. H. Moore	Semi-Skilled Laborer	49th Armored Div.	
J. W. Newman	Field Survey Worker I	49th Armored Div.	
H. Rhine Jr.	Inspector I	49th Armored Div.	
W. M. Rhine	Field Survey Worker II	49th Armored Div.	
M. L. Sims	Field Survey Worker I	49th Armored Div.	
C. L. Smith	Inspector I	49th Armored Div.	
J. E. Steele	Engineering Aide I	49th Armored Div.	
W. L. Tucker	Skilled Laborer	49th Armored Div.	
L. R. Tyler	Semi-Skilled Laborer	49th Armored Div.	
B. J. Waldie	Inspector I	980th Eng. Bn.	
J. W. Waldie	Inspector III	49th Armored Div.	
G. W. Washburn	Inspector II	49th Armored Div.	
R. W. Womack	Common Laborer	49th Armored Div.	

District 3

W. G. Brannon	Skilled Laborer	49th Armored Div.	Specialist 5
C. R. Carter	Field Survey Worker I	49th Armored Div.	Sergeant
A. J. Case	Inspector I	49th Armored Div.	Staff Sergeant
J. L. Craft	Skilled Laborer	49th Armored Div.	Specialist 4
W. E. Daniel	Inspector II	49th Armored Div.	Staff Sergeant
C. A. Davis Jr.	Draftsman I	49th Armored Div.	Staff Sergeant
G. M. Davis	Inspector I	980th Eng. Bn.	Specialist 5
B. F. Dedek	Engineering Aide I	49th Armored Div.	Staff Sergeant
T. T. Dobbs	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
D. Dolberry	Skilled Laborer	49th Armored Div.	Staff Sergeant
B. C. Garner	Right of Way Util. Agt. I	980th Eng. Bn.	Sergeant
J. C. Garner	Engineering Aide II	980th Eng. Bn.	Sergeant First Class
L. L. Jett	Engineer III	49th Armored Div.	Captain
J. A. Jones	Semi-Skilled Laborer	49th Armored Div.	Corporal
C. H. Kirby	Inspector II	49th Armored Div.	Staff Sergeant
F. E. Lewis	Inspector I	49th Armored Div.	Specialist 5
H. G. Light	Semi-Skilled Laborer	49th Armored Div.	Staff Sergeant
J. G. Montgomery	Skilled Laborer	49th Armored Div.	Staff Sergeant
D. W. Moore	Engineering Aide I	49th Armored Div.	Private First Class
B. L. Myers	Engineering Assistant II	49th Armored Div.	Captain
J. P. Obermier	Field Survey Worker II	49th Armored Div.	Private First Class
W. Picht	Field Survey Worker II	980th Eng. Bn.	First Sergeant
C. D. Seedig	Semi-Skilled Laborer	49th Armored Div.	Specialist 5
C. F. Shaffer Jr.	Inspector II	49th Armored Div.	Staff Sergeant
R. M. Sinks	Engineering Aide I	49th Armored Div.	Specialist 4
H. G. Spicer	Skilled Laborer	49th Armored Div.	Staff Sergeant
K. B. Walker	Field Survey Worker III	49th Armored Div.	Staff Sergeant
D. R. Williams	Engineering Aide II	49th Armored Div.	Staff Sergeant
H. E. Wiest	Field Survey Worker I	980th Eng. Bn.	Specialist 4
A. W. Winton	Inspector I	49th Armored Div.	Staff Sergeant
H. P. Wood	Field Survey Worker II	49th Armored Div.	Staff Sergeant

District 4

H. W. Brothers	Right of Way Agent I	980th Eng. Bn.	Specialist 4

District 5

E. A. Smith	Engineering Aide IV	980th Eng. Bn.	Captain

District 7

S. B. Awalt	Inspector III	980th Eng. Bn.	Master Sergeant
J. D. Burks	Semi-Skilled Laborer	980th Eng. Bn.	Specialist 4
J. R. Evans	Engineering Assistant II	980th Eng. Bn.	First Lieutenant
C. H. Hurst	Semi-Skilled Laborer	980th Eng. Bn.	Private First Class
R. C. Minor	Semi-Skilled Laborer	980th Eng. Bn.	Specialist 4
W. A. Spieker	Semi-Skilled Laborer	980th Eng. Bn.	Specialist 4

District 8

J. H. Derrick Jr.	Field Survey Worker	490th Civil Aff. Det.	Lieutenant
W. D. Faircloth	Inspector I	490th Civil Aff. Det.	Staff Sergeant
C. M. Kitchell Jr.	Engineer III	490th Civil Aff. Det.	Captain
G. R. McCann	Engineering Aide II	49th Armored Div.	Private
D. R. Phillips	Engineering Aide I	490th Civil Aff. Det.	Specialist 4
F. L. Ritchey	Engineering Aide II	49th Armored Div.	Private

District 9

R. S. Blanchard	Engineering Clerk I	49th Armored Div.	Specialist 4
O. F. Brewster	Engineering Aide I	49th Armored Div.	Lieutenant Colonel
J. D. Guthrie	Field Survey Worker I	49th Armored Div.	Sergeant
K. O. Henager	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
W. L. Knight Jr.	Field Survey Worker II	49th Armored Div.	Sergeant
L. W. Lawson	Engineering Aide I	49th Armored Div.	Sergeant

ROLL

District 10

M. N. Adair	Engineering Aide I	49th Armored Div.	Staff Sergeant
J. H. Barr	Sr. Engineering Assistant	U. S. Air Force	Second Lieutenant
G. L. Blackwell	Semi-Skilled Laborer	49th Armored Div.	Sergeant
J. L. Cade	Semi-Skilled Laborer	49th Armored Div.	Private
K. W. Cline	Engineering Aide II	49th Armored Div.	Sergeant
B. M. Jones	Engineering Aide II	49th Armored Div.	Sergeant
C. H. Jones	Common Laborer	49th Armored Div.	Specialist 4
W. C. Martin	Engineering Aide II	49th Armored Dib.	Sergeant
R. A. Montgomery	Engineering Aide I	49th Armored Div.	Private First Class
T. L. Moore	Engineering Aide I	49th Armored Div.	Specialist 4
H. N. McGaughey	Engineer II	49th Armored Div.	First Lieutenant
F. F. Nicholas	Draftsman I	49th Armored Div.	Sergeant
F. L. Sanders	Semi-Skilled Laborer	49th Armored Div.	Specialist 5
B. Ray Snyder	Engineering Aide I	49th Armored Div.	Staff Sergeant
T.A.Wainwright Jr.	Engineering Aide I	49th Armored Div.	Private

District 11

T. M. Allen	Engineering Aide II	49th Armored Div.	Specialist 4
J. L. Boyd	Inspector I	49th Armored Div.	Sergeant
R. W. Carnes	Inspector I	49th Armored Div.	Sergeant
J. A. Clark	Inspector I	49th Armored Div.	Specialist 4
J. L. Chiles	Semi-Skilled Laborer	49th Armored Div.	Specialist 5
J. O. Davis	Semi-Skilled Laborer	49th Armored Div.	Sergeant
D. A. Dickerson	Clerk II	49th Armored Div.	Sergeant
T. V. Hallmark	Field Survey Worker I	49th Armored Div.	Specialist 4
W. J. Lyon	Right of Way Agent I	49th Armored Div.	First Lieutenant
A. F. Steed	Engineering Aide II	49th Armored Div.	Specialist 4
B. G. Wallace	Engineering Aide II	49th Armored Div.	Corporal

District 12

C. E. Blezinger	Engineering Aide II	49th Armored Div.	Sergeant
T. V. Terry	Engineer III	49th Armored Div.	Captain
G. P. Willis	Clerk III	49th Armored Div.	Private

District 14

T. R. Bullock	Materials Analyst III	136th Trans. Co.	C. W. O.
J. F. Johnson	Semi-Skilled Laborer	49th Armored Div.	Sergeant
L. O. Marx	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
G. R. Widmer	Semi-Skilled Laborer	49th Armored Div.	Private First Class

District 15

L. E. Youngblood	Engineer III	1104th Trans. Co.	First Lieutenant

District 17

H. W. Collins	Field Survey Worker II	49th Armored Div.	Sergeant
J. L. Crook	Inspector I	49th Armored Div.	Sergeant
B. M. Currie	Engineering Aide I	49th Armored Div.	Sergeant
E. C. Draehn	Engineering Aide I	49th Armored Div.	Specialist 5
H.Grabarschick Jr.	Inspector I	49th Armored Div.	Specialist 5
J. L. Grossie	Common Laborer	49th Armored Div.	Sergeant
F. Haarmeyer	Engineering Aide II	49th Armored Div.	Sergeant
J. L. Manning	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
J. F. Novak	Engineering Aide III	49th Armored Div.	Sergeant
J. Paholek	Stock Clerk III	49th Armored Div.	Specialist 5
C. N. Reynolds	Inspector II	49th Armored Div.	Sergeant
R. A. Rychlik	Engineering Aide III	49th Armored Div.	Sergeant
J. G. Williams	Engineering Assistant II	49th Armored Div.	Sergeant
T. D. Wilson Jr.	Stock Clerk II	49th Armored Div.	Specialist 4

District 18

P. F. Aechternacht	Common Laborer	49th Armored Div.	Specialist 5
R. K. Ashton	Engineering Aide II	49th Armored Div.	
R. S. Davis	Engineering Aide II	49th Armored Div.	Specialist 4
W. M. Denney	Field Survey Worker I	49th Armored Div.	Specialist 4
C. Graves	Inspector I	49th Armored Div.	Specialist 5
F. W. Guthery	Engineering Aide I	49th Armored Div.	Private
W. F. Singleton Jr.	Inspector I	49th Armored Div.	Specialist 5

District 19

R. D. Adcock	Materials Analyst I	49th Armored Div.	Specialist 5
C. E. Akins	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
B. R. Barnes	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
R. H. Barr	Engineering Aide IV	49th Armored Div.	First Lieutenant
A. M. Benefield Jr.	Engineering Assistant I	49th Armored Div.	Staff Sergeant
J. R. Bentley	Accounting Clerk III	49th Armored Div.	Private First Class
B. J. Blackburn	Engineering Assistant I	49th Armored Div.	Sergeant
P. D. Boyd	Engineering Aide I	49th Armored Div.	
R. L. Burch	Engineering Asisstant II	49th Armored Div.	Private First Class
V. V. Capehart	Inspector II	49th Armored Div.	Specialist 5
A. W. Cariker	Inspector II	49th Armored Div.	Corporal
W. W. Chambers	Inspector I	49th Armored Div.	Specialist 5
C. W. Davis	Semi-Skilled Laborer	49th Armored Div.	Sergeant
C. W. Dell	Materials Analyst III	49th Armored Div.	Staff Sergeant
W. Denton Jr.	Semi-Skilled Laborer	49th Armored Div.	Sergeant
S. E. Elliott	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
C. E. Fant	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
C. E. Gortney	Junior Inspector	49th Armored Div.	
R. W. Green	Semi-Skilled Laborer	(called for physical)	
J. L. Hemperly	Inspector I	49th Armored Div.	Sergeant
E. L. Henderson	Engineering Aide III	49th Armored Div.	Specialist 5
J. H. Henderson	Engineering Aide IV	49th Armored Div.	Master Sergeant
W. T. Hendry	Draftsman II	49th Armored Div.	Staff Sergeant
J. L. Hunt	Field Survey Worker II	49th Armored Div.	Specialist 4
J. L. King	Engineering Assistant	Air Force	
V. W. King Jr.	Engineer II	49th Armored Div.	First Lieutenant
J. L. Knox Jr.	Engineering Aide II	49th Armored Div.	Sergeant
W. D. Lance	Engineering Aide II	49th Armored Div.	Sergeant
D. Lemmon	Accounting Clerk II	(called for physical)	
O. N. Loper	Draftsman I	49th Armored Div.	Sergeant
R. A. McCarty	Semi-Skilled Laborer	49th Armored Div.	Staff Sergeant
M. E. McGill	Inspector I	49th Armored Div.	Private
H. L. McNeil	Engineering Assistant I	49th Armored Div.	Second Lieutenant
B. M. Milam	Materials Analyst I	(called for physical)	
H. W. Mims	Inspector II	49th Armored Div.	Sergeant First Class
W. D. Power	Inspector I	49th Armored Div.	Private
E. Prator	Engineering Aide II	49th Armored Div.	Specialist 4
L. Pyle	Warehouse Supervisor	49th Armored Div.	Captain
J. R. Sanders	Materials Analyst III	49th Armored Div.	Staff Sergeant
J. F. Shumate	Inspector I	49th Armored Div.	Sergeant
T. T. Stevens	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
J. E. Stewart	Engineering Assistant II	49th Armored Div.	Private
D. R. Thomas	Field Survey Worker II	49th Armored Div.	Staff Sergeant
J. E. Waldron	Inspector I	49th Armored Div.	Specialist 5
C. E. Wall	Engineering Clerk II	49th Armored Div.	Specialist 5
J. W. Watkins	Engineering Aide III	49th Armored Div.	Sergeant
C. R. Wilcox	Engineering Assistant II	49th Armored Div.	First Lieutenant

District 21

F. Barrera	Engineering Aide III	49th Armored Div.	First Lieutenant
J. D. Cantu	Engineering Aide I	49th Armored Div.	Staff Sergeant
R. Van Cise	Semi-Skilled Laborer	49th Armored Div.	Specialist 4
C. Clores	Semi-Skilled Laborer	49th Armored Div.	Staff Sergeant
F. G. Gonzalez	Semi-Skilled Laborer	49th Armored Div.	Specialist 5
G. Gonzalez	Engineering Aide I	49th Armored Div.	Specialist 5
R. Gonzalez	Engineering Aide II	49th Armored Div.	Sergeant
G. Graham	Engineer I	49th Armored Div.	First Lieutenant
L. D. Gwin	Accounting Clerk III	49th Armored Div.	Sergeant
J. F. Jordan	Engineering Assistant I	49th Armored Div.	Recruit
C. E. Kraus Jr.	Draftsman I	49th Armored Div.	Staff Sergeant
J. R. Martinez	Engineering Aide I	49th Armored Div.	Corporal
A. Mendiola	Engineering Aide I	49th Armored Div.	Specialist 4
M. Mendiola Jr.	Materials Analyst I	49th Armored Div.	Sergeant First Class
C. E. Norman	Engineering Clerk I	49th Armored Div.	Private First Class
A. Palacios	Common Laborer	49th Armored Div.	Specialist 5
A. Quintanilla	Draftsman III	49th Armored Div.	Sergeant
R. R. Salinas	Engineering Assistant II	49th Armored Div.	Sergeant
J. F. Serna	Semi-Skilled Laborer	49th Armored Div.	Specialist 5
R. C. Ullrich Jr.	Engineering Aide I	49th Armored Div.	Specialist 4
F. Vecchio	Engineering Aide II	49th Armored Div.	Sergeant
A. B. Vela	Inspector II	49th Armored Div.	Staff Sergeant
E. Vela	Engineering Aide I	49th Armored Div.	Specialist 5

District 22

F. L. Ayres	Engineer III	1104th Trans. Co.	First Lieutenant
J. Moffett	Engineering Aide II	1104th Trans. Co.	Staff Sergeant
H. C. Moore	Engineering Aide I	1104th Trans. Co.	
S. J. Nuckles	Skilled Laborer	1104th Trans. Co.,	Sergeant
W. G. Orr	Draftsman I	1104th Trans. Co.	Master Sergeant

District 23

H. E. Fox Jr.	Engineering Aide I	49th Armored Div.	Sergeant
A. T. Rushing	Field Survey Worker II	49th Armored Div.	Sergeant First Class

District 25

C. R. Jameson	Semi-Skilled Laborer	49th Armored Div.	Private First Class
A. F. Moore	Inspector II	49th Armored Div.	Specialist 4
D. R. Warren	Semi-Skilled Laborer	49th Armored Div.	Specialist 5

rattlesnake road

The "Texas" of the past, a tough frontier land where fact often exceeded the wildest flights of fancy, produced some amazing tales. But none was more startling than the story now unfolding in South Texas, a story that may well become one of the most colorful legends of tomorrow—tales of Rattlesnake Road.

Through the years Texas has come up with some lulus in the way of "different" highways — a highway paved with gold, a highway used as a landing strip for planes, and many others. And now, Rattlesnake Road.

The highway with the dubious honor of being Texas' first Rattlesnake Road is a flat, eight-mile stretch of F.M. 1593 between Lolita and Point Comfort on the Gulf Coast.

Until 1958 local residents might kill 25 or 30 rattlers along the road, but then suddenly rattlesnakes began to cover the highway. An estimated 700 were killed in a seven-month period.

No one knows for sure why so many snakes suddenly appeared. One explanation given was the flat, marshy country and sparse population along Rattlesnake Road. The land abounds with small burrowing animals that have created natural dens for the snakes and the animals offer a good source of food. People living along the road believe as long as the marsh conditions exist they will be plagued with the rattlers.

The biggest center for rattlesnake hunting lies half way between Lolita and Point Comfort at a small chemical company substation. The station is a few hundred feet from the highway and consists of four houses, an office, and supply buildings. When employees began to find snakes in their carports, on their porches, in

Rattlesnake Road is, in reality, F. M. 1593, in South Texas near Point Comfort. Approximately 700 rattlers were killed in an eight-mile stretch on this farm to market road in only seven months. Four snakes can be seen in this picture.

Disturbed while taking his afternoon nap, this resident of Rattlesnake Road prepares to let the photographer know how he feels about such things.

their yards, and in the outbuildings, they organized hunting parties to protect themselves and their children. Hunting rattlesnakes was nothing new to the men but it had never been done on an organized scale. They had no fear of the reptiles, but they had a healthy respect.

A "snake safari" usually consists of four men each carrying a ten-foot pole with a hook on the end for snaring the rattlers. The hunters are completely familiar with the snakes' habits and can spot a den that is invisible to the untrained eye. A typical safari can bag as many as 25 of the reptiles. The men keep a record of the rattlers they kill by dropping the rattles into a fruit jar and marking the number on a label pasted on the side.

After spotting a den, the hunters pour crude oil into the opening, light it, and surround the opening as the fumes begin to drive the snakes from the hole. Each snake is snared with the hook pole and placed in a container and later killed. While the hunters consider a safari a necessity, it is nevertheless a great sport which fills many of their off-duty hours.

Not all the snakes are killed. Game Warden Curtis Jenkins has captured at least a hundred rattlers to sell to zoos. Jenkins said that Rattlesnake Road is the most heavily infested area he has ever seen. He and local residents have discussed the infiltration with several herpetologists, but none of them has been able to come up with a simple explanation.

Usually the men kill snakes along the road by driving over them. Probably the best record so far is held by two men who killed 39 in one day. On the same day another man killed eleven with his car. On another occasion one of the men killed seven snakes at one spot, the intersection at State 35.

Some people in the area consider it quite a sport to spent a quiet summer evening driving the eight-mile stretch to see how many snakes they can kill. One of the employees at the camp estimated there are an average of four cars cruising the road daily with only one purpose—to hunt and kill rattlesnakes.

Men from the chemical station killed around 300 along the road and estimate other hunters have killed at least 400—making a total of about 700 in seven months. It is difficult to keep count of all the snakes killed because the buzzards quickly carry them into the bar ditches or over the fences into the fields.

Strangely, of 300 rattlers killed on the road during this time, only one was reported killed on the west side. The only explanation offered was that the snakes crawl from the fields at night on the east side of the road to reach the warmth of the pavement. Snakes crawling from the west stop at the Point Comfort and Northern Railroad tracks which run parallel to the road on the west side. The high, dry tracks also offer the warmth the snakes are seeking. Railroad men say the snakes along the tracks are as thick as along the highway. This would mean Rattlesnake Road has many more snakes than was previously estimated.

Luckily, the "hard-bitten" residents of the area are not hard bitten. None of the hunters or residents has ever been bitten even though the snakes surround them. However, one motorist from Lolita claims he was indirectly "snake bit." While he was stopped on the road trying to kill a snake, his car was struck from behind, knocked across a bar ditch into a fence and just about demolished. Fortunately, the man was chasing the rattler on foot at the time and escaped injury.

With 175 rattlesnakes killed in 45 days this year, it looks as if there will be more tales to add to the growing legend of Rattlesnake Road.

our pontoon bridges

The pontoon bridge on the Intracoastal Canal on F. M. 1495 south of Freeport was scuttled before Hurricane Carla hit. The pontoon, or barge, has been swung to the "closed" position, allowing tug boats and barges to pass up the canal. The barge is swung into this position before it is scuttled.

Scuttling ships to save them from the storm is an old maritime procedure, and Texas Highway Department maintenance crews have adopted the principle to save three pontoon bridges on the Intracoastal Canal.

Two days before Hurricane Carla hit the coast, the pontoon, or barge, bridges were scuttled to prevent high tides from washing them to certain destruction. In adopting this form of passive resistance, rolling with the punch of the hurricane, the crews are able to get motor traffic back to normal in minimum time.

Raising the bridges after the storm entailed some work and a little cost in cleaning the salt water from the gasoline engines used to operate the bridges, but it is cheaper than having the bridges washed inland and broken up by the waves. This action prevented the bridges from being completely lost and the only damage to the pontoons themselves was a section of the bridge pivot arm on the F.M. 1495 bridge at Bryan Beach just south of Freeport.

The bridge operator's cabin in the middle of the barge, or pontoon, houses a gasoline engine that turns a series of cables to open and close the bridge. To sink the bridge before a storm, the barge is swung parallel to one side of the canal and scuttled. This leaves the canal open to water traffic. When the bridge is raised, the engine has to be overhauled because of the salt water and

sink'em to save'em

The pilot's cabin on the barge houses the automobile engine which drives winches and cables for opening and closing the bridge. This pontoon bridge was completed in 1958 and maintenance men sank it only as far as the engine housing before Hurricane Carla struck.

mud, but this method prevents the loss of the entire barge. The canal bridge near Freeport was built in 1958 and, being so new, the crews lowered it only to the engine, to prevent having to overhaul the engine after the storm.

Approaches and bridge tenders' houses and tool sheds were damaged during the hurricane but the barges escaped the wrath of Carla. The bridge tender's house at Matagorda rests on piling six feet off the ground and water marks inside the house were approximately three and a half feet from the floor. This means the tide was running ten to twelve feet at this point on the coast. The tool room used by the bridge tender was found several hundred yards inland. The marine warehouse near the Freeport bridge is on a fifteen-foot fill and water rose almost to the door.

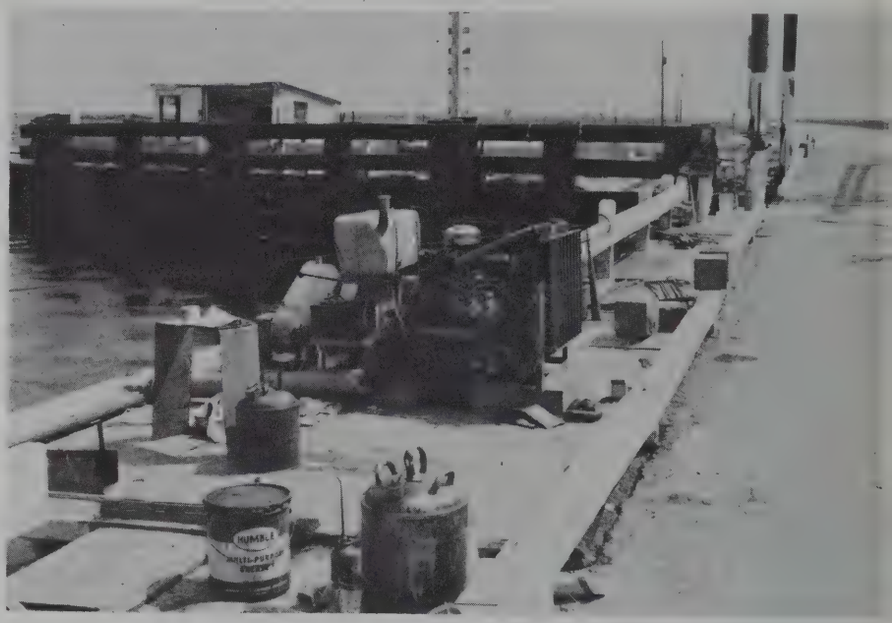
Whenever a storm approaches the coast, the maintenance men prepare to scuttle the bridges. Everyone living on the beaches is warned that the scuttling operation is about to take place and they must leave unless they want to be isolated from the mainland. Families of air force personnel living on Matagorda had to be evacuated across the pontoon bridge two days before Carla struck. Those living on the beach near Freeport now have the high bridge.

A pattern for the barge bridge used today was set up in 1934 when the Department bought an old barge, modified it to use on the canal north of High Island on S.H. 124, and used it until a high, rigid bridge could be completed.

Dave Askew, now Engineer of Buildings and Real Estate in D-18, was maintenance bridge engineer at the time and he and Pat Clark, formerly with Maintenance Division and Bridge Division, were given the task of working out details on how

Part of the bridge pivot arm was damaged during the hurricane, but this was the only damage, thanks to the old maritime trick of sinking a ship to keep it from being broken to pieces on the shore. The darker angles are the ones which have just been welded into place.

This pontoon bridge near Freeport has a 24-foot roadbed and is 125 feet long. The ten-foot steel apron in the foreground can be raised to allow pleasure boats to pass without having to swing the barge alongside the bank. The marine warehouse in the left background was built on a fifteen-foot fill and the tides got almost to the door.



Pictured is the engine used to operate cables in opening and closing the pontoon bridge on F. M. 457 near Sargent (south of Bay City). This bridge was completed in April 1943, and has been in continuous operation since then.

High tides only got up to the top of piling at the bridge tender's house on the Sargent Beach road. Note seaweed on cross members under near corner.

to put the barge to use. Using a piling as a pivot at one end of the barge, they worked out a system of cables which would pull the barge around and installed an old Chevrolet motor to do the work. It was designed so one man on the barge could operate the opening and closing. The same procedure is used on today's bridges.

The barge bridge near Freeport was rebuilt in 1958, replacing the one built in 1940. This latest addition has a 24-foot roadbed, is 125 feet long, 30 feet wide, and seven feet deep. Construction is of treated timber and steel beams and channels. The ten-foot steel aprons are designed to float up and down with the barge with the change in tides. Over-all length, including approaches, is 302 feet and vertical clearance is fourteen feet.

The other two barges, one on F.M. 457 south of Bay City and the other on F.M. 2031 at Matagorda, are 96 feet long. Both are built of treated timber and steel. The one at Matagorda was completed in 1941 by maintenance forces and the other in 1943. The load limit on these two

Water is pumped out of scuttled barge bridge on the Intracoastal Canal at Matagorda. The bridge was raised and back in operation a few days after Carla struck.

W. E. Kay, Senior Marine Superintendent, District 12, points out the high-water mark in bridge tender's dining room at Matagorda. Tides rose approximately 42 inches in the house, and the house is built about six feet from the ground.

bridges is 15,000 pounds per tandem, while the one near Freeport will carry the legal limit allowed on Texas highways.

The aprons at each end of the barges are raised to let pleasure boats pass without moving the barge itself. The aprons are ten feet wide, which allows cruisers to pass between the barge and the approaches. Small motor boats can pass beneath the aprons while they are in the down position.

Before a rigid, high bridge was completed on S.H. 332 over the canal north of Freeport motor traffic was backed up for half a mile on Sunday afternoons as pleasure craft kept the aprons up most of the day. Now most traffic going to the beach uses the new bridge on 332.

Over the years the pontoon bridges have sustained damages from barges and tug boats using the canal. Usually, it's the piling and hand rails on the approaches that get knocked around by passing barges. Maintenance crews repair the damage and bill the company whose boat is responsible for the accident.

Let the hurricanes come. Maintenance crews know how to protect their pontoon bridges—sink 'em and save 'em.

CREDIT AND COMPLIMENTS

Lamar County Echo, editorially lauding the Highway Department—"One of the finest assets that Paris possesses is the privilege of housing the district offices of the Texas Highway Department.

"Work in the Paris District is typical of the type found all over Texas, but we can see it first hand.

"The highway department is on the ball!

"Whether our Texas Highway Department employees know it or not, they receive compliments every time the amateur travelers venture across state lines.

"Without a public relations staff, we'd say the Texas Highway Department is a very much appreciated item in the make-up of Paris economy."

Austin American-Statesman, in its letters to the editors, "I hope in one of your editorials you will see fit to give both credit and compliments to our State Highway Department for providing an adequate highway network that made possible the mass evacuation from the coastal area during the Hurricane Carla.

"Indeed, to my mind it contributed more to the evacuation than any other factor, with the possible exception of the storm reporting by the weather bureau through the newspapers, radio, and TV."

COMING ALONG

Laredo Times, on highway progress—"The million-dollar construction project on Interstate Highway 35 in Laredo from Farias Street north 2.1 miles has been rated 10 per cent complete, State Highway Engineer D. C. Greer reported today."

Temple Telegram, editorially speaking—"The report that widening of Highway 36 from Interstate 35 west to State Highway 317 west of Temple will begin Monday comes as welcome news.

"This well-traveled road has needed improvements for some time. Its shortcomings have been especially noticeable because of the improvements in other major highways in Bell county through the years.

"Of special interest is the fact that bridges, as well as the highway itself, will be widened to the equivalent of four lanes."

Temple Telegram, in an editorial on interstate progress—"the 41,000 mile Interstate Highway System is more than one-fourth completed. As of the first of this month [October], 11,230 miles or 27.4 per cent are open to traffic, 4,700 miles are in advanced stages of construction and 9,950 miles have had engineering right-of-way acquisitions completed. The remaining 15,120 miles have had no work, other than preliminary planning."

Waco Times-Herald, reporting a new bridge—"Preliminary work for building a new million-dollar bridge across the Brazos River on Highway 7 started this week. The new bridge will replace the old-style, narrow, three-span bridge now in use.

"M. L. Malone, resident engineer for the State Highway Department says the new bridge planned on Highway 7 will cost $905,282, not including engineering, which will run total costs to more than $1 million."

CARLA CAUSE

Corpus Christi Times, on Carla damage—"A team of highway specialists will recommend to the federal government that Nueces County receive $85,677 in federal aid for hurricane damage to county roads and bridges.

"The two highway specialists, John Hoes of the State Highway Department and Duane Lewis of the U. S. Bureau of Public Roads, also estimated $53,900 as the cost of temporary repairs to the Padre Island Causeway. But they said that since the causeway is a toll road, there is a question as to whether federal money can be used in its repair."

The Port Lavaca Wave, from an editorial—"Few jobs will ever surpass that of Milton Turk and his state highway crews who kept roads open when possible, re-opened others in astonishing time when conditions allowed. It is significant that all Calhoun's roads were open to travel less than three days after the storm ended, most of them in just hours."

FERRY BOAT SERENADE

Galveston News, on the ferry problem, "An agreement was signed . . . by the city council members and representatives of the Texas Highway Department to share the cost of acquisition of the submerged land the ferry boats operate over adjacent to the Galveston ferry landing.

"Under the agreement, the department will appraise the 7.8 acres of land that must be acquired. The city will negotiate with the owners for this property and, failing in negotiations, will condemn the land."

PIER STILL POSSIBLE

Port Lavaca Wave, bringing the Lavaca Bay fishing pier back into the news —"A public fishing pier in Lavaca Bay is a possibility that still is being explored by Texas and Calhoun officials.

"A special Texas legislative act appropriated $10,000 to convert 4,000 feet of the bridge to a fishing pier, before Carla smashed it apart.

"An inventory of materials left of the causeway—many of its supports are still standing—is being made by W. A. King, resident highway engineer of Victoria.

"His findings will be relayed to the agencies [Game and Fish Commission, State Parks Board, and Texas Highway Department] who might yet figure into the fishing pier, County Judge Howard Hartzog said."

ON THE MOVE

Colorado City Record, on a transfer of local families—"Eighteen families will be transferred from Colorado City to Big Spring in the first part of 1962 by the Texas Highway Department.

"Joe Smoot, resident engineer here for the department, confirmed circulating rumors of the transfer of the local department employees. . . .

"He said that the department's work would increase heavily in Howard County (Big Spring) in the coming months . . . while the heavy work load in this county was now abating . . ."

LIGHTWAY

Hereford Brand, reporting new highway lighting, "U. S. Highway 60 inside Hereford soon will be brightly lighted with mercury vapor lamps.

"Work started . . . to install 90 of these lamps, each with a rating of 20,000 lumens, between the east and west city limits.

"Due to lack of space, lights on the south side will not be installed until the present overhead telephone cables are put into underground conduits."

F.M. FIGURES

Kilgore News Herald, datelined Austin, "Some 613 miles of new farm to market roads across the state will be built in 1962 at an estimated cost of $15.2 million, the Highway Commission reported . . . .

"The commission usually approves farm road construction programs for two years. The commission said the one-year plan results from Gov. Price Daniel's recent veto of the $15 million farm road appropriation for the second year of the present biennium."

KEEP 'EM CLEAN

Commercial Recorder (San Antonio), "Lester Pruett, senior landscape architect of the Texas Highway Department will speak on 'Beautification and Cleanliness of Texas Highways and Expressways' at the directors meeting of the Beautify San Antonio Association."

FLORIDA-CALIFORNIA EXPRESS

Houston Post, on Interstate 10—"The 21-mile strip of Interstate 10 linking Orange and Beaumont will be opened to traffic the week of October 15, Orange County officials said.

"The national highway will provide expressway driving facilities from Jacksonville Beach, Fla., to San Diego, Calif., when completed.

"The new strip of highway will reduce travel time from Orange to Beaumont to less than 30 minutes. The new highway also shortens the distance, eliminates many miles of narrow pavement, tight bridges, and saucer curves that were traffic hazards for years."

HOLEY HIGHWAY?

Paris News, in a Dale Johnson bylined story—"Just after the Texas Highway Department completed construction on new highways in Paris they brought along a truck to punch holes in them.

"Actually, it doesn't tear them up much. It drills a six-inch hole nine inches deep to obtain a core sample of the concrete which the road contractor used in the construction. Highway Department men refill the hole immediately.

"Each core is marked with paint and taken to Austin where the truck is based."

APT PUNISHMENT

Amarillo Daily News, editorializing on the litterbug brigade—"According to The Sunday Brand of Hereford, Deaf Smith County seems to be taking the old Gilbert and Sullivan admonition to 'make the punishment fit the crime' quite literally:

" 'Grassroots justice and homespun logic were combined this week when the Deaf Smith County Sheriff's department put four litterbugs to work cleaning up their own debris along with that of other people.

" 'The men, taken into custody for throwing beer cans along public highways, were given a choice of facing trial or of policing county roads on a special K-P detail. The men chose the clean up detail, and Monday morning gathered a full load of cans and bottles as a result of their sentence.' "

SLIP OF THE BRUSH

Denton Record-Chronicle, in a caption beneath a picture of a sign reading "BELEW CEMETARY"—"In newspaper publishing there is never a misspelled word, just typographical errors. The highway department may have a similar occurrence—such as a slip of the brush. This is the sign recently erected on State Highway 99 between Aubrey and Pilot Point. Somehow the sign painter ran out of 'E's,' needing one more to spell cemetery correctly."

MAGIC CARPET

San Marcos Record, in a news story on Interstate 35—"Before long visitors to San Marcos can roll into the city on the finished surface of one of the finest superhighways in the world.

"Interstate 35, a magic phrase for many communities in a north-south strip of Texas, is due to have its final phases of construction begin on the local level late this year, according to reports from the State Highway Department.

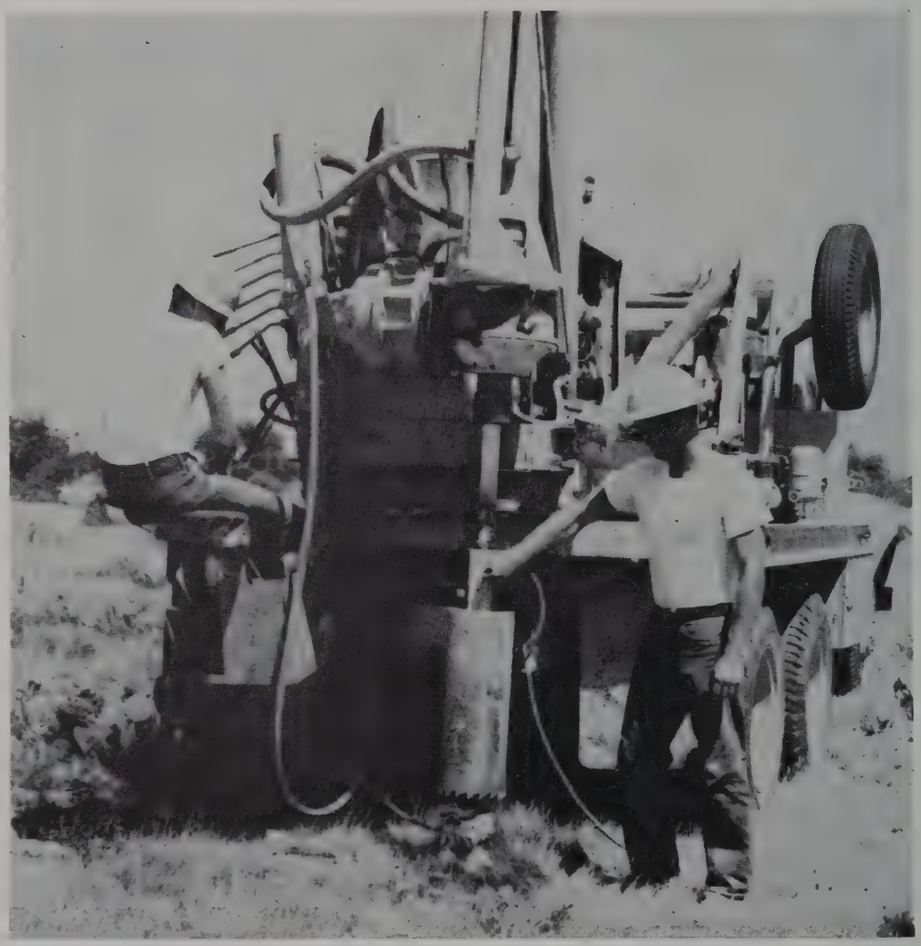
"This highway, a vital link between Mexico City through San Marcos to Winnipeg, Canada, often is referred to as the Main Street of America."

For Soil Investigation

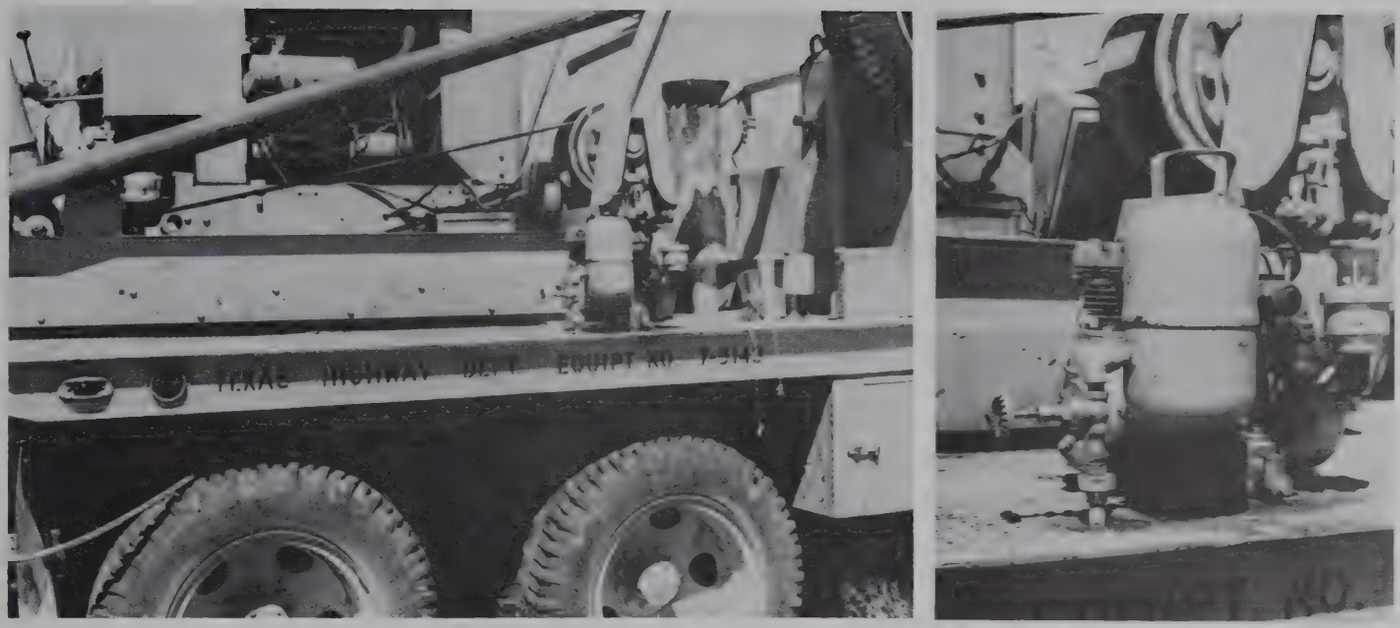
Improved Drilling Equipment

W. P. Harrington, Laboratory Engineer
District 7

A small air compressor mounted on the drill truck unit has been a very successful time-saving device in District 7 Laboratory soil investigation work. Drilling must be done in this area in rock formations, and in the past the extraction of cores from the rock bits was often a time-consuming process, especially if any clay material was combined with the rock cores. By adding the air-compressor unit, compressed air is introduced through the top of the rock bit, forcing the cores downward. The air pressure on top of the cores, combined with a few taps on the side of the rock bit with a hammer, extracts the cores in a matter of seconds. Before addition of the air-compressor unit, the core extraction often required several minutes and labor with sledge hammers.



Otis D. Touchstone Jr., Skilled Laborer, left, and Charles M. Davis, Materials Analyst II, right, demonstrate extraction of rock and soil materials from rock bit using the compressed-air apparatus.



The small air-compressor unit is mounted on the drill-truck bed and requires only a small amount of space on the bed of the drill-truck unit.

The compressed-air tank is mounted beneath the truck bed. Maximum air pressure is 140 psi.

The compressor is mounted on top of the truck bed and pumps air to an air tank mounted underneath the the truck bed. An automatic pop-off valve allows the maximum air pressure to build up to 140 psi in the tank. A quick-change air coupling is tapped into the top of the rock bit, enabling fast connection to the air hose that leads from the air tank. A small piece of ⅜-inch metal plate is welded onto the top of the rock bit and to the side of the quick-change coupling to protect the coupling during drilling operations.

Otis D. Touchstone Jr., Skilled Laborer, is credited with making the successful adaptation of the air-compressor unit to the drilling operations.

A quick-change air coupling is tapped into the top of the rock bit to facilitate fast connection to air hose.

Construction of the Hunt Creek Bridge

Leslie F. French, Senior Resident Engineer
District 2

On the tenth of August, 1959, the Texas Highway Department awarded Harry Newton, Inc., a contract in the amount of $455,490.86 for the construction of Hunt Creek Bridge.

The bridge is located on R.M. 2475, six miles west of Bridgeport in Wise County. At the proposed location, Hunt Creek has lost its identity to Lake Bridgeport, which necessitated the coordination of the design with the owners of the lake. The distance across the lake at the spillway elevation is some 2,000 feet. However, after numerous negotiations with the lake owners, both parties decided that a 1,350-foot bridge with rock approaches would be satisfactory.

Based on economical cost comparisons, use of two 300-foot and two 375-foot continuous I-beam units with 75-foot spans and with a substructure of two 42-inch drilled shafts, two 36-inch columns, and a standard three-foot cap, was decided on.

Drilling equipment sets 3/8-inch-by-42-inch-by-72-foot steel casing into drilled shaft.

The fact that the entire job was to be constructed over water reflected in the unit bid prices, as disclosed by the comparative prices in the chart.

Description	*Hunt Creek Prices*	*Average Bid Jan.-July, 1959*
Class "A" Concrete Slabs	$48.00	$47.00
Bents and Columns	60.00	50.00
Structural Steel (I-beams)	.154	.14
30" Drilled Shafts	40.00	14.00
42" Drilled Shafts	72.50	30.00

You will notice that the largest price difference is in the drilled shafts, and as the items get farther away from the water, the difference decreases until the Class "A" Concrete (Slabs) is practically the same as the averages.

The results of the foundation explorations shown on the plans indicated to the contractor that the drilled shafts would have to be constructed through 26 to 45 feet of water, ten feet or more of silt, layers of variable depths of wet sandy clay, moist shaley clay, in some holes layers of sandstone, and at variable depths blue shale was encountered.

The elevation of the finished bridge was arrived at by allowing a three-foot free board between the highest known flood and the bottom of the steel. The spillway elevation of Lake Bridgeport is 826 feet, the highest known floodwater elevation is 836 feet; and the elevation of the bridge is 843 feet.

To cope with all of these conditions, the contractor selected the two-casing method from a selection of six alternates shown on the plans. The six alternates shown were actually variations of two basic alternates, one of which allowed the shafts to be built

in the usual method of drilling, casing, pouring, and removing the casing, using some approved method of holding the concrete in place after the casing was pulled and while the concrete was curing. The other method, and the one used by the contractor, was to leave the steel casing in place.

The two-casing method consists of drilling a shallow, oversized hole setting the outer, or ground casing, and then installing in the ground casing the 42-inch, left-in-place casing. The purpose of the ground casing is to absorb all wave action, thus preventing any movement in the drilled shaft while the concrete is obtaining its set. After the ground casing is set in its proper place, the 42-inch shaft is drilled to a depth to which it was thought the casing could be sealed.

Transit aligns drilling rig in proper position out in the middle of the lake.

Required reinforcing steel is placed in steel casing.

This was nearly always in the blue shale. The left-in-place casing is then screwed in to the desired depth; all muck and water is bailed out and drilling continues until the required depth is obtained.

After drilling to the required depth, the contractor cleaned out all of the mud and water from the bottom of the hole. A State inspector was then lowered into the drilled shaft to inspect the bottom conditions. When the drilled shaft was accepted by the inspector, the required amount of reinforcing steel and concrete was used to complete the drilled shaft. After the concrete had obtained a 500-pound-per-square-inch strength, the ground casing was removed to another location. The contractor had a sufficient number of ground casings on hand so that he did not have to wait for the concrete to cure before starting a new shaft.

Three major pieces of floating equipment plus two motor boats were necessary to provide the required working area on the lake and communication with the shore. Two of the

This barge was used for transporting necessary materials to the working site on the lake.

Transit-mix truck is loaded on ferry which transports it to the drilled shafts site.

Transit-mix concrete is poured into drilled shaft through an eight-inch tremie.

The barge with crane is being brought in for repairs. Note special slotted tremie tube in foreground on barge.

After 211 working days, the bridge is complete.

major pieces of floating equipment consisted of barges assembled from navy-type pontoons arranged to allow the drilling rig to drill down through the floor of the barge and also provide for working room around the barge on three sides. One barge was used as working area for the drilling rig, and the other, working area for the crane used to handle the casings, reinforcing steel, and other incidental items used in the drilling. The third major piece of floating equipment was a self-propelled barge used as a ferry for transporting the casing, reinforcing steel, and transit-mix trucks from shore to the drilling site. One motor boat was used by the contractor for transporting personnel to and from the working site. The second motor boat was used by the State inspection forces.

The drilling-rig barge was maneuvered into location by hand-operated winches welded to four corners of the barge. These winches were attached to anchors strategically placed out in the lake. By the simple method of loosening winches and tightening other winches, the barge was brought into location and made fast.

The crane barge's mission was to supply the drilling rig with all necessary supplies. By using the self-propelled barge as a tug, the crane barge maneuvered back and forth from shore, hauling the reinforcing steel, casings, and other items required by the drilling rig. Also, it served as a working platform during steel-setting operations and while pouring concrete into the drilled shafts.

After completion of the drilled shafts, the remaining portion of the work—columns, caps, and such—were handled in the normal procedure; however, the barges provided working room for men and equipment throughout the complete construction of the project.

Superintendents for the job were Frank Perrin—in charge of drilled shafts, columns, and caps; Walter McDonald—in charge of steel erection; and Zack Burkett, general superintendent.

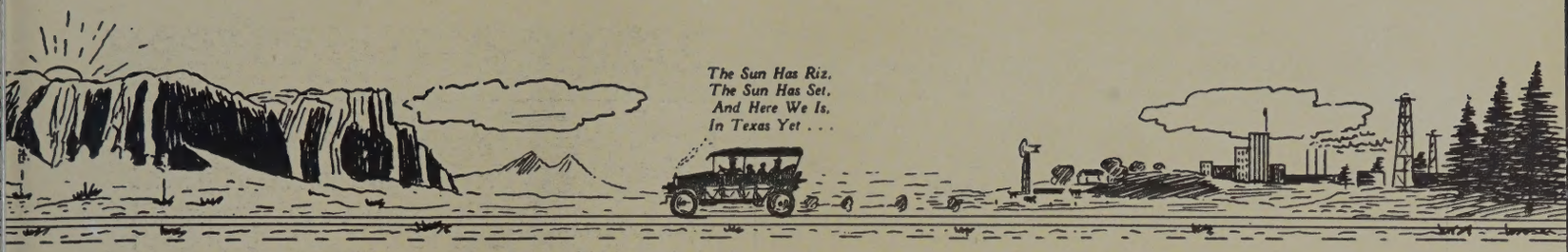
Safety Record

Joel D. Willson, Maintenance Construction Superintendent
District 5

We are enclosing pictures—one made some time ago—of W. I. Ivy, Senior Maintenance Foreman at Levelland, standing beside his "No Lost Time Accidents" record board, and another of him with his crew made more recently, when the board shows 5,754 days.

We think this is a very fine record. As of June 1, 1961, this crew had worked 386,537 man-hours without a lost-time accident.

This report does not detract from the very fine safety record reported by the Grimes County Maintenance crew in the May issue of TEXAS HIGHWAYS. They reported 317,740 man-hours at that time. The difference, of course, is because of the different size crews.



OVER THE HIGHWAYS

Comments . . . from the Traveling Public

• This is a long-overdue thank you for the general excellence of Texas highways. Each time we have returned from a cross-country trip it has been with increased appreciation for our wonderful Texas roads. We are particularly impressed with the way you keep traffic moving in areas of construction. Many states fall down here. We have just returned from a trip to Vancouver, B. C., going one way and returning another. In all that driving we found many good roads, but we still think Texas ahead. We are always glad to get back to Texas highways.

Mrs. C. L. Saunders
Mission, Texas

• I have been intending to suggest this for a long time.

So many persons now have a compass in their automobiles, and I have heard quite a few of them express the desirability of having a place where they might check the accuracy of their compass and compensate it. On this line, it occurs to me that in roadside parks your engineers might set up a true north and south indicator, so that persons stopping in these roadside parks could adjust their compasses accordingly. A north-south arrow might be painted on top of one of the tables, or it might be a permanent metal marker on a post.

L. A. Wilke, Editor
TEXAS GAME AND FISH

• To: Mr. L. E. Killough, Senior Maintenance Foreman, Bovina

. . . We wish to take this opportunity to express our appreciation to you and your maintenance crews for your very fine cooperation in maintaining approaches to our rural mail boxes. We are particularly impressed by, and grateful for, the very excellent job your crews have accomplished in the removal of snow from the roads in winter. It was noted that, where it was possible your machines manned by your excellent operators, cleared snow from the road shoulders as close to the mail boxes as conditions would permit. This makes our job of delivering the mail during inclement weather much easier and encourages our patrons to do a little extra work with the shovel to make it possible for us to serve the boxes from our cars without having to get out and wade through the snow.

I know some of your crew personally, but shall mention no names for all of them have been so wonderful to me. They have even gone out of their way to lend me assistance, even when there is nothing wrong except a flat. If they are in sight many times they will come and ask if they can help. . . .

Nelson C. Smith, Rural Carrier
L. E. Meeks, Sub. Carrier
Farwell, Texas

• Dear Sirs:
I would like to have Texas.

Joseph Brown
Audubon, New Jersey

◈ *From his handwriting, we suspect that instead of being greedy, the gentleman is a very young pupil in search of* information *on Texas, not yet advanced enough to know exactly how to phrase it.*

• I have seen the American flag flying on Highway 67 here [Travel Information Bureau] and it looks good to all Americans and I think will have a good effect on our youth.

I am a lifetime member of the Texas Society of Sons of American Revolution is why I am so interested, and I want to thank you for your cooperation.

Arch M. Campbell
Texarkana, Texas

◈ *Both American and Texas flags are now flying at the Highway Department's Travel Information Bureaus.*

• We have just returned from a trip to Mexico and on our way we crossed a good part of Texas. We appreciate so much the excellent roads you have and the shelters, picnic grounds and parks you have prepared for the travelers, that we made it a point to send you our thanks.

Mrs. and Mrs. Charles Bruml
Falls Church, Virginia

To and From Our Readers

Archie Sherrod sent in a clipping from the *Fort Worth Star-Telegram* on "bar ditches." The writer had used the term, and been questioned on its usage. Said one writer, "The proper name is borrow ditch—resulting from highway builders borrowing dirt from them. Another reporter suggest that the expression "bar ditch" originated after Davy Crockett killed a bear in one.

Still another report offers that they are known as bar ditches because they have so many empty beer and whiskey bottles tossed into them.

The letter below was addressed to the State Highway Commission and the staff of the Highway Department:

"On behalf of all of the officials and citizens of Calhoun County, we want to extend our appreciation to you for your prompt action in Austin Monday authorizing the necessary repairs and improvements to restore State Highways and Farm-to-Market Roads serving this area.

"Here in an area constituted by rivers, deltas, peninsulas, and islands, hurricane Carla laid its heaviest hand. Essential transportation routes were damaged or severed. You and your men were on hand as the hurricane entered the Gulf and at all times during all phases of the disastrous winds—but more—before any official request could be made you with all your equipment moved in without fanfare, opening roads, removing debris, building bridges, working on a 24-hour basis until now almost all devastated areas have highway service or essential detours.

"This we realize is and was a monumental task. All of us who bore the responsibility for Civilian Defense appreciate the results of your advance planning, direction and efforts. It is impossible to give our thanks to each individual but may the letter serve until we can offer our thanks in person."

Howard G. Hartzog
County Coordinator

James F. Houlihan
Director Civil Defense

Dr. Frank Kinsey
Mayor, Port Lavaca

Mayor O. L. Worley
Seadrift

Mayor Scott R. Vaughan
Point Comfort

Sheriff D. B. Halliburton

T. A. Anderson
Works Manager
Aluminum Company of America

R. A. Berry
Plant Manager
Union Carbide & Chemical Co.
Seadrift

Mrs. Louise Sharp
Mayor Pro Tempore
Port O'Connor

About Our Pictures . . .

On the cover this month is a stretch of Interstate 10 about five miles east of El Paso.

Inside the front cover is a wide expanse of U. S. 59 ten miles south of Texarkana

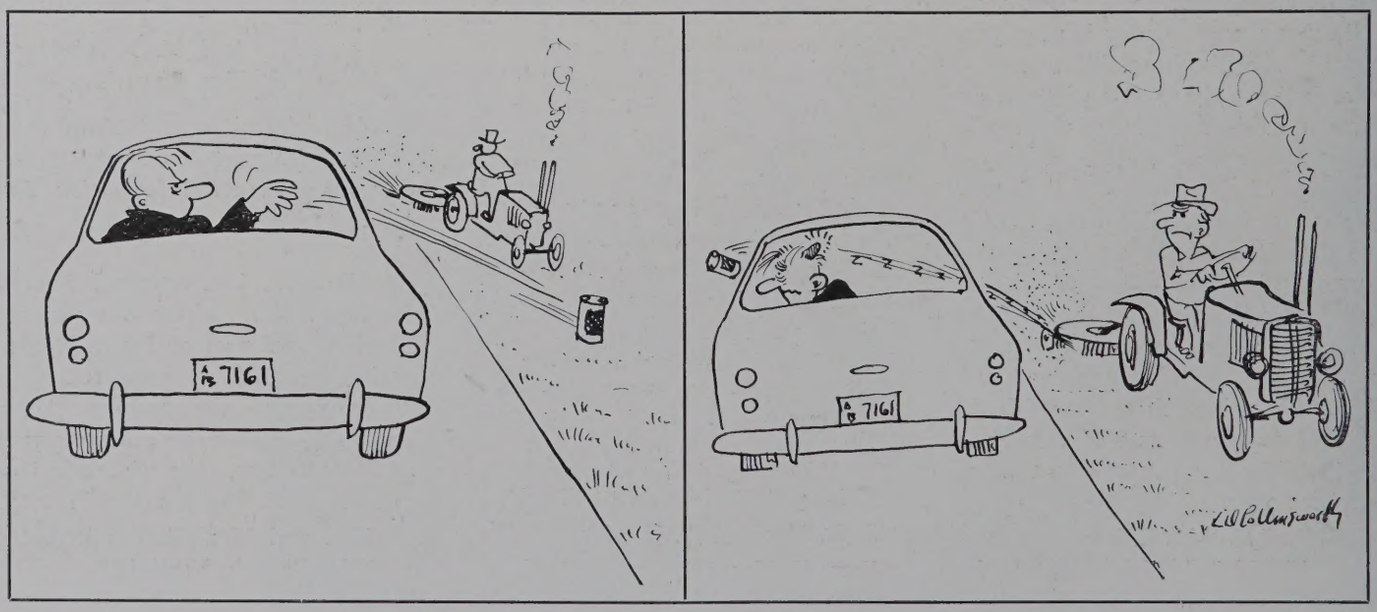
TEXAS HIGHWAY COMMISSION

HERBERT C. PETRY JR.	**Chairman**
CHARLES F. HAWN	**Member**
HAL WOODWARD	**Member**
D. C. GREER	**State Highway Engineer**

Texas Highways

TEXAS HIGHWAYS, official journal of the Texas Highway Department, is published in the interest of highway development in Texas and for departmental education in the improvement of construction, maintenance, and operation.

TEXAS HIGHWAYS is available to the general public on a subscription basis at $3.50 annually, or it can be purchased for 35 cents a copy. Subscriptions, inquiries, material, or manuscripts should be directed to the Editorial Office, Travel and Information Division, Texas Highway Department, Austin 14, Texas.



This section of Interstate 45 north of Houston has been named one of the most scenic highways in America in a recent competition sponsored by Parade magazine, a national newspaper supplement. The highway was among fifteen finalists chosen from more than 300 entries and was cited as one of the highways "which best embodies the high principles of land use, planning, construction and design." Winner of the first-place award in the contest was Maine's Interstate 95 between Augusta and Fairfield.

CENTER FOR TRANSPORTATION RESEARCH LIBRARY
L050706